reference point. Heavy overcast results in disorientation. Birds with their internal 'clocks' reset (by being kept in an artificial day out of phase with the normal one) fly S.W. if six hours fast, N.E. if six hours slow. With clocks twelve hours out they go S.E. around sunrise and sunset but it appears that their sun-angle correcting mechanism unwinds during their 'night', as if the sun ran backward after sunset, through south at midnight.

Under the stars, time does not appear to enter into the calculations, and directions are probably determined from the alignment of the constellations. Under the moon alone the indications are that the angle flown must again be continuously adjusted according to the time of night (and the day of the month).

## The Ten-year Scientific Index

The scientific index of the *Bulletin* covering the period 1950-1959 inclusive has now been published at the price of ten shillings.

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## The Lyre-tailed Honey-Guide in the Ivory Coast

by HARRY A. BEATTY
Received 4th February, 1963

The history of ornithological observations in the Upper Guinea forest area of West Africa dates back to the time of its early exploration and includes the names of many notable collectors. Yet not once was any mention made of *Melichneutes robustus*, the Lyre-tailed Honey-Guide, as occurring there. No specimen was collected; no one reported seeing the bird or even hearing its nasal tooting in the sky. It has been seen in Southern Nigeria, but the forest there is connected with the great block of forested Lower Guinea, where *Melichneutes* is now known to be very widely distributed.

It was my good fortune in 1951-52 to spend about twelve months in the Gaboon, where I visited Mr. P. C. Rougeot at Tshibanga; and at seven different localities I became thoroughly familiar with the strange noises made by the Lyre-tail as it dives from the sky toward the tree-tops.

Early in 1960 I started again on an extended trip in West Africa to make collections for the Peabody Museum of Yale University at New Haven, Connecticut. Abidjan on the Ivory Coast was reached on the 17th of March, and on the 31st of March I left for the mountains of the interior. After a flight to Man, three more days of travel by motor lorry brought me to the village of Yále, at the very base of the Nimba Mountains. With the aid of a local guide I was able to reach an altitude of 6,000 feet on Mt. Nimba by the 5th of April.

The constant drizzle and frequent electrical storms soon forced us to abandon our mountain camp, and we returned to Yále village on the 10th of April. Thereafter excursions were made daily from that village into the mountains, and once or twice a week we climbed up the steep slopes to the ridge at the summit. This whole region, montane and lowland alike, is

covered with jungly rain forest, its tall trees and undercover closely packed, and interlaced with a tangle of rope-like lianas.

The presence of the Lyre-tail in this forest became evident almost at once. At 8 a.m. on the 4th of April, as my guide and three other men were entering the village with me, the unmistakable sounds made by a Lyre-tail in flight came through the crisp air from the direction of the forest. We stood listening, fascinated by the noise, which seemed at first to come from afar, yet gradually to approach us. We agreed that its maker must be about three-fourths of a mile away as the performance ended. This was a morning of brilliant sunshine, yet with mist in the valley. The Lyre-tail gave its serenade four times, only at intervals.

Thereafter it seemed to repeat its performance almost daily until the 4th of May. We listened to it on thirteen different days during that period, sometimes only once in a day, but more often two, three, or four times, and on the 19th of April even five times. On the 12th of April a Lyre-tail was judged to have passed within 200 yards of the village in one long continuous flight of almost a half-mile. We heard the bird only on sunny mornings, around 8 or 9 o'clock, but none was heard after the 4th of May, although I remained in the vicinity until the 12th of June. On wet, misty mornings the Lyre-tail remained silent, at least until the fog had been dissipated and the sun came out warm and brilliant.

Many natives, here of the Yakoba tribe, were familiar with the noise and referred to it as "zierre"; but not one of them seemed to know it was produced by a small bird. A group of men and women from a place one full day's walk to the south-east of Yále assured me that they frequently heard the same sounds while working in their coffee plantations. I was convinced they knew it well, but all my efforts to secure a specimen of *Melichneutes* went unrewarded.

On my way back to the coast I stayed for thirteen days at Man, but never did I hear the Lyre-tail there. In any case we may now be certain that the range of the elusive Lyre-tailed Honey-Guide is not restricted to the rain forests of Lower Guinea, including Southern Nigeria, but extends westward to the high forests of the Nimba Mountains, near the junction of the Ivory Coast, Guinea, and Liberia. This is at approximately 7½ degrees of north latitude and 8 degrees of west longitude, some 170 miles inland from the coast.

## A Gadwall with a white neck ring and a review of plumage variants in wildfowl

by James M. and Jeffery G. Harrison

Received 27th December, 1962

Through the kindness of the Wildfowl Trust, we have recently received on loan the skin of an adult drake Gadwall *Anas strepera* Linnaeus with a pronounced white neck ring. The bird was shot by Lord William Percy on 25th February, 1913 on South Uist, Outer Hebrides, and was presented to the Trust by him together with the rest of his wildfowl collection.

In our previous note (Harrisons 1959 A) we have recorded this variant in three out of twelve drake Gadwall in our collection, so that it is reasonably common. This example is, however, quite the most marked of any